

Panel: Human Behavior and Performance Support for ISS Operations and Astronaut Selections

Slide Title: NASA Operational Psychology for Six-Crew Operations

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Introduction: The Behavioral Health and Performance group at NASA Johnson Space Center provides psychological support services and behavioral health monitoring for ISS astronauts and their families. The ISS began as an austere outpost with minimal comforts of home and minimal communication capabilities with family, friends, and colleagues outside of the Mission Control Center. Since 1998, the work of international partners involved in the Space Flight Human Behavior and Performance Working Group has prepared high-level requirements for behavioral monitoring and support. The “buffet” of services from which crewmembers can choose has increased substantially. Through the process of development, implementation, reviewing effectiveness and modifying as needed, the NASA and Wyle team have proven successful in managing the psychological health and well being of the crews and families with which they work.

Increasing the crew size from three to six brought additional challenges. For the first time, all partners had to collaborate at the planning and implementation level, and the U.S. served as mentor to extrapolate their experiences to the others. Parity in available resources, upmass, and stowage had to be worked out. Steady progress was made in improving off-hours living and making provisions for new technologies within a system that has difficulty moving quickly on certifications. In some respect, the BHP support team fell victim to its previous successes. With increasing numbers of crewmembers in training, requests to engage our services spiraled upward. With finite people and funds, a cap had to be placed on many services to ensure that parity could be maintained.

The evolution of NASA BHP services as the ISS progressed from three- to six-crew composition will be reviewed, and future challenges that may be encountered as the ISS matures in its assembly-complete state will be discussed.

Educational Objectives: To provide an overview of the behavioral health support services that are provided to ISS crewmembers and their families, and to discuss the addition of all partners to the crew complement during a relatively short period of time. At the end of this presentation, the participant will understand the challenges of providing support services to a multinational crew, and the extensive psychological support effort that has been undertaken since the first crew was launched in 2000.